



Design and Technology at Moorside

National Curriculum:

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

At Moorside Primary School and Nursery, we embrace the aims of the National Curriculum Programme of Study for Design and Technology.

Our Intent:	<i>It is our intent at Moorside primary and Nursery to teach children skills that will positively impact on their design and technology education throughout their lives. We want children to enjoy becoming innovative, enterprising pupils.</i>		
	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Knowledge	<ul style="list-style-type: none"> • Understand the need for a variety of food in a diet • Understand that all food has to be farmed, grown or caught • Evaluate and assess existing products and those that he/she has made using a design criteria • Evaluate and assess existing products and those that he/she has made using a design criteria • Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable 	<ul style="list-style-type: none"> • Understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy and active • Understand seasonality and the advantages of eating seasonal and locally produced food • Consider how existing products and his/her own finished products might be improved and how well 	<ul style="list-style-type: none"> • Confidently plan a series of healthy meals based on the principles of a healthy and varied diet • Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable / tasty to eat • Use technical knowledge accurate skills to problem solve during the making process

	<ul style="list-style-type: none"> • Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable • Explore and use mechanisms e.g. levers, sliders, wheels and axles, in his/her products 	<p>they meet the needs of the intended user</p> <ul style="list-style-type: none"> • Understand how mechanical systems such as levers and linkages or pneumatic systems create movement • Understand and use electrical systems in products • Use his/her knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them 	<ul style="list-style-type: none"> • Use his/her knowledge of famous designs to further explain the effectiveness of existing products and products he/she have made • Use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately • Apply his/her understanding of computing to program, monitor and control his/her product
Skills	<ul style="list-style-type: none"> • Use a wider range of cookery techniques to prepare food safely • Design purposeful, functional, appealing products for himself/herself and other users based on design criteria • Generate, develop, model and communicate his/her ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology • Choose appropriate tools, equipment, techniques and materials from a wide range 	<ul style="list-style-type: none"> • Read and follow recipes which involve several processes, skills and techniques • Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience • Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes 	<ul style="list-style-type: none"> • Research, plan and prepare and cook a savoury dish, applying his/her knowledge of ingredients and his/her technical skills • Use information on food labels to inform choices • Use research he/she has done into famous designers and inventors to inform the design of his/her own innovative products • Generate, develop, model and communicate his/her ideas through discussion, annotated

	<ul style="list-style-type: none"> • Safely measure, mark out, cut and shape materials and components using a range of tools 	<ul style="list-style-type: none"> • Create designs using exploded diagrams • Use techniques which require more accuracy to cut, shape, join and finish his/her work e.g. Cutting internal shapes, slots in frameworks • Apply techniques he/she has learnt to strengthen structures and explore his/her own ideas 	<p>sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <ul style="list-style-type: none"> • Use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately
Implementation	<p>Our aims at Moorside primary and nursery school are to ensure that all pupils are given the opportunity to develop their creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.</p> <ul style="list-style-type: none"> • We intend to build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users • Our lessons are delivered by skilled adults who have knowledgeable ideas in all aspects of Design and technology from computer programming, to cooking skills and allowing pupils to critique, evaluate and test their ideas and products and the work of others • Teach through cross curricular subjects, linking to our topics and ensuring children have time to design, plan and evaluate their ideas. • Our whole school ethos is to celebrate our amazing work with parents and the community, whilst learning new skills in our ever changing world. 		
Impact:	<p>Design and Technology is an amazing subject. It makes a massive impact on students' learning as they need to take information they learn from other subjects, especially maths and science, and apply it using logic, the power of analysis, creativity and common sense. Sometimes pupils don't understand some concepts properly until they apply them practically. It's a real cross-curricular subject.</p>		

